

substantially the same proteins as the first extract but lacking the heterologous protein wherein the challenging (b) and observing (c) steps are carried out in the same manner for both the first and second extracts, and

(e) if the degree of the allergic response at (c) is greater than that observed by carrying out steps (a)-(c) in accordance with step (d), identifying the heterologous protein as a potential allergen in humans.

2. (Amended) The method of claim 1, wherein said challenging and observing steps are selected from the group consisting of

(a) applying the first or the second extract to a skin region of the dog and observing a local wheal reaction at the application site as the allergic response (skin test);

(b) feeding the first or the second extract to the dog, and observing gastrointestinal upset as the allergic response (feeding test);

(c) injecting the first or the second extract directly with the wall of the stomach of the dog and observing a local wheal reaction at the application site as the allergic response (gastroendoscopy test);

(d) administering the first or the second extract by inhalation to the dog, and observing bronchial constriction as the allergic response (inhalation test); and

(e) applying the first or the second extract with a patch immobilized on the skin and observing inflammation at the site of application (transdermal patch test).

3. (Reiterated) The method of Claim 1, wherein the extract is obtained from a transgenic plant.

4. (Amended) The method of claim 3, wherein the plant is a crop plant selected from the group consisting of corn, barley, wheat, rice, peanut, sorghum, millet, spelt, and soy.

5. (Reiterated) The method of claim 1, wherein step (d) is carried out by applying the first extract to a dog sensitized with said second extract.

AY 6. (Amended) The method of claim 1, wherein substantially no allergic reaction is observed in carrying out steps (a)-(c) in step (d).

7. (Amended) The method of claim 1, wherein said first or second extract is prepared by forming a tissue powder and extracting the powder with a selected extract medium.

8. (Reiterated) The method of claim 1, which further includes, when a potential allergen is identified in step (e), repeating step (c) with the heterologous protein in purified form.

✓  
Please *CANCEL* claim 9.

9. (Amended) The method of claim 8, wherein the heterologous protein is produced by a transgenic plant.

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Please *CANCEL* claim 11.

10. (Amended) The method of claim 1, wherein the degree of allergic response observed in step (c), compared with that observed in step (d) is indicative of the degree of allergenicity expected in humans.

✓  
Please *CANCEL* claims 13-21.

*Please add new claims 22-41 as follows:*

22. (New) A method for testing the allergenicity of a heterologous protein produced by a plant that has been genetically modified to produce that protein, comprising the steps of:

(a) sensitizing a newborn dog from an atopic dog colony with a first extract prepared from tissue of the genetically modified plant and containing a mixture of plant proteins and the heterologous protein, by injecting the first extract into the newborn dog,

(b) after a period sufficient to allow the dog to establish an immune response to the first extract, challenging the dog with the first extract,

(c) observing the degree of allergic response provoked,

(d) if a detectable allergic response is observed, comparing the degree of the allergic response observed with that observed by carrying out steps (a)-(c) above, but where the sensitizing step (a) or challenging step (b) is carried out with a second plant extract containing substantially the same proteins as the first extract but lacking the heterologous protein wherein the challenging (b) and observing (c) steps are carried out in the same manner for both first and second extracts, and

(e) if the degree of the allergic response at (c) is greater than that observed by carrying out steps (a)-(c) in accordance with step (d), identifying the heterologous protein as a potential allergen in humans.

23. (New) The method of claim 22, wherein said challenging and observing steps are selected from the group consisting of:

(a) applying the first or the second extract to a skin region of the dog and observing a local wheal reaction at the application site as the allergic response (skin test);

(b) feeding the first or the second extract to the dog, and observing gastrointestinal upset as the allergic response (feeding test);

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(c) injecting the first or the second extract directly with the wall of the stomach of the dog and observing a local wheal reaction at the application site as the allergic response (gastroendoscopy test);

(d) administering the first or the second extract by inhalation to the dog, and observing bronchial constriction as the allergic response (inhalation test); and

(e) applying the first or the second extract with a patch immobilized on the skin and observing inflammation at the site of application (transdermal patch test).

24. (New) The method of claim 23, wherein the extract is obtained from a transgenic plant.

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25. (New) The method of claim 24, wherein the plant is a crop plant selected from the group consisting of corn, barley, wheat, rice, peanut, sorghum, millet, spelt, and soy.

26. (New) The method of claim 23, wherein step (d) is carried out by applying the first extract to a dog sensitized with said second extract.

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27. (New) The method of claim 23, wherein substantially no allergic reaction is observed in carrying out steps (a)-(c) in step (d).

28. (New) The method of claim 23, wherein said first or second extract is prepared by forming a tissue powder and extracting the powder with a selected extract medium.

29. (New) The method of claim 23, which further includes, when a potential allergen is identified in step (e), repeating step (c) with the heterologous protein in purified form.

30. (New) The method of claim 29, wherein the heterologous protein is produced by a transgenic plant.

31. (New) The method of claim 23, wherein the degree of allergic response observed in step (c), compared with that observed in step (d) is indicative of the degree of allergenicity expected in humans.

32. (New) A method for testing the allergenicity of a heterologous protein produced by a plant that has been genetically modified to produce that protein, comprising the steps of:

(a) sensitizing a newborn dog from an atopic dog colony with a first extract prepared from tissue of the genetically modified plant and containing a mixture of plant proteins and the heterologous protein, by feeding the first extract to the newborn dog,

(b) after a period sufficient to allow the dog to establish an immune response to the first extract, challenging the dog with the first extract,

(c) observing the degree of allergic response provoked,

(d) if a detectable allergic response is observed, comparing the degree of the allergic response observed with that observed by carrying out steps (a)-(c) above, but where the sensitizing step (a) or challenging step (b) is carried out with a second plant extract containing substantially the same proteins as the first extract but lacking the heterologous protein wherein the challenging (b) and observing (c) steps are carried out in the same manner for both the first and second extracts, and

(e) if the degree of the allergic response at (c) is greater than that observed by carrying out steps (a)-(c) in accordance with step (d), identifying the heterologous protein as a potential allergen in humans.

33. (New) The method of claim 32, wherein said challenging and observing steps are selected from the group consisting of:

(a) applying the first or the second extract to a skin region of the dog and observing a local wheal reaction at the application site as the allergic response (skin test);

(b) feeding the first or the second extract to the dog, and observing gastrointestinal upset as the allergic response (feeding test);

(c) injecting the first or the second extract directly with the wall of the stomach of the dog and observing a local wheal reaction at the application site as the allergic response (gastroendoscopy test);

(d) administering the first or the second extract by inhalation to the dog, and observing bronchial constriction as the allergic response (inhalation test); and

(e) applying the first or the second extract with a patch immobilized on the skin and observing inflammation at the site of application (transdermal patch test).

34. (New) The method of claim 32, wherein the extract is obtained from a transgenic plant.

35. (New) The method of claim 34, wherein the plant is a crop plant selected from the group consisting of corn, barley, wheat, rice, peanut, sorghum, millet, spelt, and soy.

36. (New) The method of claim 32, wherein step (d) is carried out by applying the first extract to a dog sensitized with said second extract.

37. (New) The method of claim 32, wherein substantially no allergic reaction is observed in carrying out steps (a)-(c) in step (d).

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38. (New) The method of claim 32, wherein said first or second extract is prepared by forming a tissue powder and extracting the powder with a selected extract medium.

39. (New) The method of claim 32, which further includes, when a potential allergen is identified in step (e), repeating step (c) with the heterologous protein in purified form.

40. (New) The method of claim 39, wherein the heterologous protein is produced by a transgenic plant.

41. (New) The method of claim 32, wherein the degree of allergic response observed in step (c), compared with that observed in step (d) is indicative of the degree of allergenicity expected in humans.

**In the Abstract of the Disclosure**

Please replace the Abstract of the Disclosure with the following new Abstract of the Disclosure: